NICE National Institute for Health and Care Excellence

NICE Pathways

Head injury overview

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/head-injury
NICE Pathway last updated: 14 October 2019

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.

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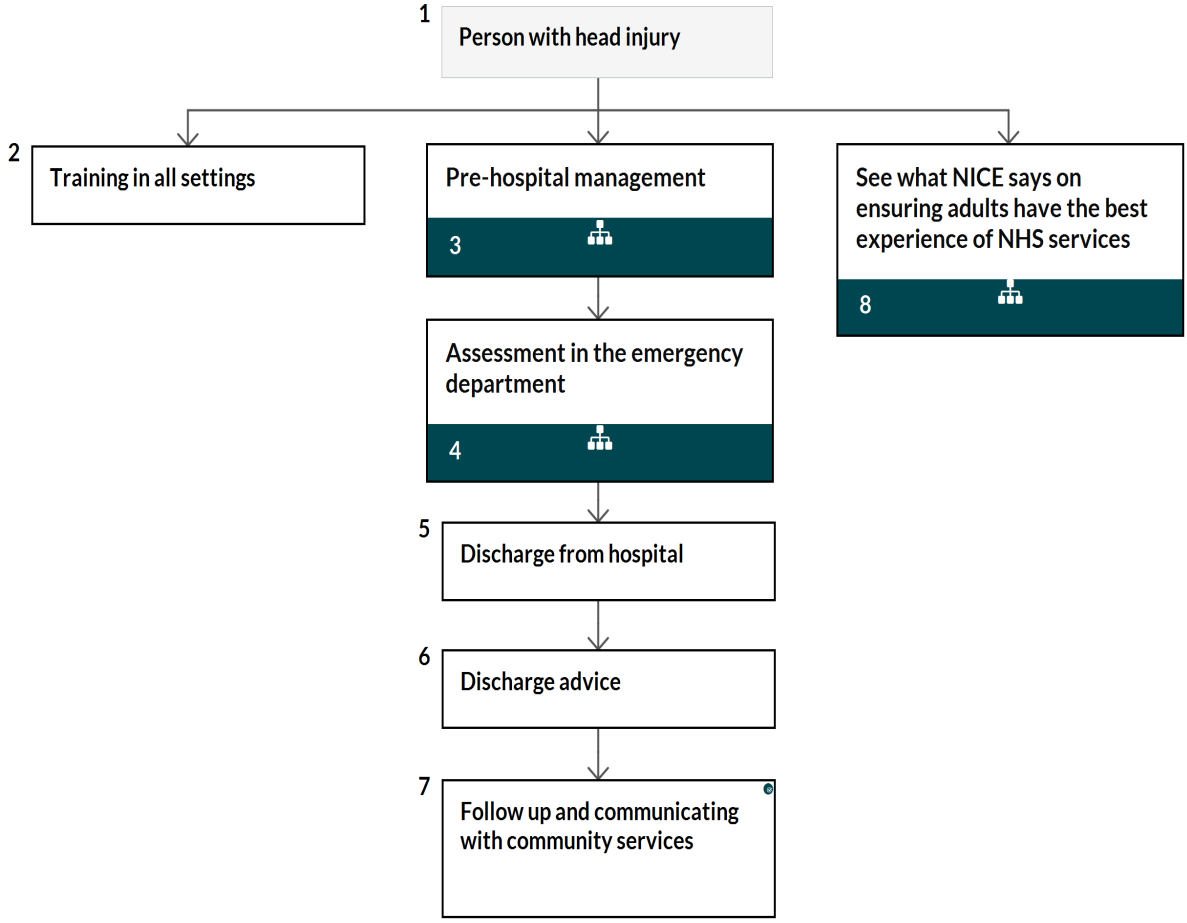

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1 Person with head injury

No additional information

2 Training in all settings

Training in risk assessment

GPs, nurse practitioners, dentists and ambulance crews should receive training, as necessary, to ensure that they are capable of assessing the presence or absence of the risk factors listed in person presents using community health services or minor injury clinic.

Training for ambulance crews

Ambulance crews should be fully trained in the use of the adult and paediatric versions of the GCS and its derived score. See recommendations on the GCS [See page 7].

Ambulance crews should be trained in the safeguarding of children and vulnerable adults and should document and verbally inform emergency department staff of any safeguarding concerns.

Also see what NICE says on child abuse and neglect.

Training for emergency department staff

All emergency department clinicians involved in the assessment of patients with a head injury should be capable of assessing the presence or absence of the risk factors for CT head and cervical spine imaging listed in investigation for clinically important brain injuries in patients with head injury and investigation for injuries to the cervical spine in patients with head injury. Training should be made available as required to ensure that this is the case.

Training and audit in transferring patients

Education, training and audit are crucial to improving standards of transfer; appropriate time and funding for these activities should be provided.

Training in observation

Medical, nursing and other staff caring for patients with head injury admitted for observation

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should all be capable of performing the observations listed in observations of patients with head injury.

The acquisition and maintenance of observation and recording skills require dedicated training and this should be made available to all relevant staff.

Specific training is required for the observation of infants and young children.

3 Pre-hospital management

See Head injury / Pre-hospital management for patients with head injury

4 Assessment in the emergency department

See Head injury / Assessment in the emergency department for patients with head injury

5 Discharge from hospital

Do not discharge patients presenting with head injury until they have achieved GCS [See page 7] equal to 15, or normal consciousness in infants and young children as assessed by the paediatric version of the GCS.

Patients with no carer at home

All patients with any degree of head injury should only be transferred to their home if it is certain that there is somebody suitable at home to supervise the patient. Discharge patients with no carer at home only if suitable supervision arrangements have been organised, or when the risk of late complications is deemed negligible.

6 Discharge advice

Give verbal and printed discharge advice to patients with any degree of head injury who are discharged from an emergency department or observation ward, and their families and carers. Follow NICE's recommendations on patient experience about providing information in an accessible format.

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Printed advice for patients, families and carers should be age-appropriate and include:

- Details of the nature and severity of the injury.
- Risk factors that mean patients need to return to the emergency department (see person presents using community health services or minor injury clinic for details).
- A specification that a responsible adult should stay with the patient for the first 24 hours after their injury.
- Details about the recovery process, including the fact that some patients may appear to make a quick recovery but later experience difficulties or complications.
- Contact details of community and hospital services in case of delayed complications.
- Information about return to everyday activities, including school, work, sports and driving.
- Details of support organisations.

Offer information and advice on alcohol or drug misuse to patients who presented to the emergency department with drug or alcohol intoxication when they are fit for discharge. Also see what NICE says on alcohol-use disorders and drug misuse management in over 16s.

Inform patients and their families and carers about the possibility of persistent or delayed symptoms following head injury and whom to contact if they experience ongoing problems.

7 Follow up and communicating with community services

For all patients who have attended the emergency department with a head injury, write to their GP within 48 hours of discharge, giving details of clinical history and examination. This letter should also be shared with health visitors (for pre-school children) and school nurses (for school-age children). If appropriate, provide a copy of the letter for the patient and their family or carer.

When a patient who has undergone imaging of the head and/or been admitted to hospital experiences persisting problems, ensure that there is an opportunity available for referral from primary care to an outpatient appointment with a professional trained in assessment and management of sequelae of brain injury (for example, clinical psychologist, neurologist, neurosurgeon, specialist in rehabilitation medicine).

Quality standards

The following quality statement is relevant to this part of the interactive flowchart.

7. Community rehabilitation services for people (aged 16 and over) with traumatic brain

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injury

8 See what NICE says on ensuring adults have the best experience of NHS services

See patient experience in adult NHS services

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Glasgow Coma Score

Base monitoring and exchange of information about individual patients on the three separate responses on the GCS (for example, a patient scoring 13 based on scores of 4 on eye-opening, 4 on verbal response and 5 on motor response should be communicated as E4, V4, M5).

If a total score is recorded or communicated, base it on a sum of 15, and to avoid confusion specify this denominator (for example, 13/15).

Describe the individual components of the GCS in all communications and every note and ensure that they always accompany the total score.

In the paediatric version of the GCS, include a 'grimace' alternative to the verbal score to facilitate scoring in preverbal children.

In some patients (for example, patients with dementia, underlying chronic neurological disorders or learning disabilities) the pre-injury baseline GCS may be less than 15. Establish this where possible, and take it into account during assessment.

Focal neurological deficit

(problems restricted to a particular part of the body or a particular activity, for example, difficulties with understanding, speaking, reading or writing; decreased sensation; loss of balance; general weakness; visual changes; abnormal reflexes; and problems walking)

High-energy head injury

(for example, pedestrian struck by motor vehicle, occupant ejected from motor vehicle, fall from a height of greater than 1 metre or more than 5 stairs, diving accident, high-speed motor vehicle collision, rollover motor accident, accident involving motorised recreational vehicles, bicycle collision, or any other potentially high-energy mechanism)

Skull fracture or penetrating head injury

(signs include clear fluid running from the ears or nose, black eye with no associated damage around the eyes, bleeding from one or both ears, bruising behind one or both ears, penetrating injury signs, visible trauma to the scalp or skull of concern to the professional)

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Sources

Head injury: assessment and early management (2014 updated 2019) NICE guideline CG176

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and

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their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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